

ATTACHMENT 7

FARE COLLECTION VALIDATION SYSTEM

FOR

**PROCUREMENT OF 40 FT LOW-FLOOR
HYBRID BUSES**

SPECIFICATION NO. VE21-054



Massachusetts Bay Transportation Authority
Vehicle Engineering
Boston, Massachusetts

A. Background

The MBTA has contracted with Cubic for the modernization of their fare collection system. As part of this update, the Authority is installing Cubic Fare Collection Vehicle Validators on all existing Authority revenue vehicles.

B. Scope

The Contractor shall procure and integrate the appropriate Cubic Fare Collection Validation system, as further defined in Technical Specification Section 66.1, into each new bus. The Contractor's proposed Cubic Fare Collection Validation system must be fully compatible with, and seamlessly integrate with, the Authority's Cubic AFC 2.0 system. The Contractor shall be responsible for the procurement of all components from Cubic required to integrate the Fare Collection Validation system including (but not limited to) for each bus,

1. wireless validator
 - a. One at the entrance door near the farebox
 - b. Two at each rear doorway with one forward and one aft of the door openings.
 - c. One centrally located in the mobility device securement area, easily accessible from both securement areas when either neighboring securement area is occupied
2. external antennae 1 per validator,
3. switches, cabling, harnesses, and connectors
4. mounts
5. electronic hardware (example: power distribution board and DC/DC converter)
6. hardware and fasteners

The Contractor shall be responsible for contracting with Cubic to develop vehicle specific materials lists, develop all installation and testing processes, procure all required materials and components, perform all validation testing, and confirm connectivity with the Authority's Cubic AFC system. The Contractor shall submit all design, documentation, and complete testing plan as part of the Design Review Process. **(Technical Specification Table 2, D25)**